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RAW SEQUENCE LISTING

DATE: 09/20/2004

PATENT APPLICATION: US/10/707,747

TIME: 16:13:05

Input Set : A:\Sequence Listings.ST25.txt

Output Set: N:\CRF4\09202004\J707747.raw

3 <110> APPLICANT: University of South Florida

5 <120> TITLE OF INVENTION: DETECTION OF RED TIDE ORGANISMS BY NUCLEIC ACID

AMPLIFICATION

7 <130> FILE REFERENCE: 1372.120PCR

C--> 9 <140> CURRENT APPLICATION NUMBER: US/10/707,747

C--> 9 <141> CURRENT FILING DATE: 2004-01-08

9 <160> NUMBER OF SEQ ID NOS: 8

11 <170> SOFTWARE: PatentIn version 3.2

13 <210> SEQ ID NO: 1

14 <211> LENGTH: 20

15 <212> TYPE: DNA

16 <213> ORGANISM: artificial sequence

18 <220> FEATURE:

19 <223> OTHER INFORMATION: Forward primer designed to amplify and detect the 91-bp region of

20 the rbcL gene of K. brevis.

22 <400> SEQUENCE: 1

23 tgaaacgtta ttgggtctgt

20

26 <210> SEQ ID NO: 2

27 <211> LENGTH: 22

28 <212> TYPE: DNA

29 <213> ORGANISM: artificial sequence

31 <220> FEATURE:

32 <223> OTHER INFORMATION: Reverse primer designed to amplify and detect the 91-bp region

33 of the rbcl gene specific K. brevis.

35 <400> SEQUENCE: 2

36 aggtacacac ttctgtaa ta

22

39 <210> SEQ ID NO: 3

40 <211> LENGTH: 19

41 <212> TYPE: DNA

42 <213> ORGANISM: artificial sequence

44 <220> FEATURE:

45 <223> OTHER INFORMATION: Fluorogenic probe designed to amplify and detect the 91-bp region of the rbcl gene specific K. brevis.

48 <400> SEQUENCE: 3

49 ttaaccttag tctcgggta

19

52 <210> SEQ ID NO: 4

53 <211> LENGTH: 19

54 <212> TYPE: DNA

55 <213> ORGANISM: artificial sequence

57 <220> FEATURE:

58 <223> OTHER INFORMATION: Real Time NASBA forward primer for the marker region of rbcL gene

59 specific to K. brevis.
61 <400> SEQUENCE: 4
62 acgttattgg gtctgtgta

19

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of

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65 <210> SEQ ID NO: 5
66 <211> LENGTH: 50
67 <212> TYPE: DNA
68 <213> ORGANISM: artificial sequence
70 <220> FEATURE:
71 <223> OTHER INFORMATION: Reverse primer for real time NASBA to detect the marker region
of
72     the rbcL gene specific to K. brevis.
74 <400> SEQUENCE: 5
75 aattctaata cgactcacta tagggagaag gtacacactt tcgtaaacta          50
78 <210> SEQ ID NO: 6
79 <211> LENGTH: 33
80 <212> TYPE: DNA
81 <213> ORGANISM: artificial sequence
83 <220> FEATURE:
84 <223> OTHER INFORMATION: Molecular beacon used for real time NASBA assay.
86 <400> SEQUENCE: 6
87 cgatcgctta gtctcgggtt attttttcga tcg          33
90 <210> SEQ ID NO: 7
91 <211> LENGTH: 19
92 <212> TYPE: DNA
93 <213> ORGANISM: artificial sequence
95 <220> FEATURE:
96 <223> OTHER INFORMATION: PCR primer set was designed with sequence data from Karenia
97     mikimotoi (GenBank accession no. ABO34635) by modifying existing
98     chromophyte rbcL primers in order to amplify a 554-bp region
99     (approximately one-third) of Karenia's rbcL gene (forward
102 <400> SEQUENCE: 7
103 atgatgaraa yattaactc          19
106 <210> SEQ ID NO: 8
107 <211> LENGTH: 21
108 <212> TYPE: DNA
109 <213> ORGANISM: artificial sequence
111 <220> FEATURE:
112 <223> OTHER INFORMATION: PCR primer set was designed with sequence data from Karenia
113     mikimotoi (GenBank accession no. ABO34635) by modifying existing
114     chromophyte rbcL primers in order to amplify a 554-bp region
115     (approximately one-third) of Karenia's rbcL gene (reverse
118 <400> SEQUENCE: 8
119 atttgtcccg cattgattcc t          21

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VERIFICATION SUMMARY

DATE: 09/20/2004

PATENT APPLICATION: US/10/707,747

TIME: 16:13:06

Input Set : A:\Sequence Listings.ST25.txt

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L:9 M:270 C: Current Application Number differs, Replaced Current Application No

L:9 M:271 C: Current Filing Date differs, Replaced Current Filing Date